

PATENT APPLICATION

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE
BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES**

In re application of

Docket No: Q73220

Byung-sun CHOI, et al.

Appln. No.: 10/608,411

Group Art Unit: 2621

Confirmation No.: 8067

Examiner: Tung T. VO

Filed: June 30, 2003

For: TRANSCODING APPARATUS AND METHOD, AND TARGET BIT ALLOCATION
AND PICTURE COMPLEXITY ESTIMATION APPARATUS AND METHODS USED FOR
THE SAME

REPLY BRIEF PURSUANT TO 37 C.F.R. § 41.41

MAIL STOP APPEAL BRIEF - PATENTS

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Sir:

In accordance with the provisions of 37 C.F.R. § 41.41, Appellant respectfully submits
this Reply Brief in response to the Examiner's Answer dated February 6, 2008. Entry of this
Reply Brief is respectfully requested.

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STATUS OF CLAIMS

Claims 1-3, 5-13, 15-18, 20-23 and 25-45 are all the claims pending in the application.

Claims 1, 3, 7, 9, 10, 12, 13, 17, 18, 22, 23, 27, 29, 30, and 32-35 are rejected under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent No. 6,915,018 (hereinafter, “Tajime”).

Claim 2 is rejected under 35 U.S.C. § 103(a) over Tajime in view of Kim (U.S. Patent Publication No. 2002/0126752; hereinafter “Kim”).

Claims 5, 6, 8, 11, 15, 16, 20, 21, 25, 26, 28, 31, 36-45 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form.

Claims 1-3, 5-13, 15-18, 20-23 and 25-45, which have been at least twice rejected, are the claims on appeal.

GROUND OF REJECTION TO BE REVIEWED ON APPEAL

Claims 1, 3, 7, 9, 10, 12, 13, 17, 18, 22, 23, 27, 29, 30, and 32-35 are rejected under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent No. 6,915,018 (hereinafter, “Tajime”).

Claim 2 is rejected under 35 U.S.C. § 103(a) over Tajime in view of Kim (U.S. Patent Publication No. 2002/0126752; hereinafter “Kim”).

ARGUMENT

In the Appeal Brief, Applicant explained how Tajime fails to disclose the claimed complexity estimation unit, in combination with other elements of claim 1. To wit, Applicant pointed out how claim 1 recites the complexity estimation unit as calculating the complexity of a picture to be currently encoded, using complexity of decoded previous and current pictures output from the video decoding unit and complexity of an encoded previous picture output from the video encoding unit. Applicant also showed how Tajime expressly teaches calculating a complexity measure X_p of a picture group and a complexity measure X_t in all pictures.

In response, the Examiner maintains that the complexity measure computing means 101 corresponds to the claimed complexity estimation unit. The Examiner states on pages 5-6 of the Answer that Tajime:

discloses the complexity measure computing means (101 of figs. 1 and 2), wherein the complexity measure computing means (101 of fig. 1) is to compute complexity of a picture to be currently encoded (col. 8, lines 11-14, all pictures for which encoding was performed are computed, this would fairly suggest the complexity of a picture to be currently encoded is computed), using the decoded pictures output from the decoding path section (11 of fig. 1; the output of the decoding (de-encoding) (11) is supplied to the complexity measure computing means (101), this would obviously suggest that complexity measure computing means for computing the decoded pictures, all pictures, that includes decoded previous and current pictures).

Specifically, the Examiner appears to be arguing that the calculation of the complexity of all pictures “fairly suggest the complexity of a picture to be currently encoded is computed,” i.e., fairly suggests the calculation of the complexity for a single picture. For support, the Examiner cites case law for the proposition that “not only the specific teachings of a reference but also reasonable inferences which the artisan would have logically drawn therefrom may be properly evaluated in formulating a rejection.” *See* Examiner’s Answer at p. 6.

Applicant respectfully submits that the inference drawn by the Examiner is not reasonable nor something that one skilled in the art would have logically drawn.

Tajime expressly discloses calculating “the picture group complexity measure in a plurality of pictures and the complexity measure in all pictures” Col. 8, lines 11-13. Tajime does not mention that complexity measures are calculated for a plurality of pictures, to suggest that a single complexity is calculated for a single picture. Further, Tajime does not even mention that the complexity measure is calculated for each of a plurality of pictures.

Furthermore, the formulas in column 9 of Tajime show how the complexity measure in a plurality of pictures and the complexity measure in all pictures, are both calculated based on a plurality of pictures, as thoroughly explained in detail on pages 13-14 of Applicant’s Appeal Brief.

Given the express teachings of Tajime, the Examiner’s position that Tajime discloses calculating a complexity measure for a single picture is unreasonable and does not logically

follow from the formulas on column 9. Moreover, the stated goals of Tajime are contrary to the Examiner's statements on what Tajime "fairly suggest[s]."

"If proposed modification would render the prior art invention being modified unsatisfactory for its intended purpose, then there is no suggestion or motivation to make the proposed modification." In re Gordon, 733 F.2d 900, 902, 221 USPQ 1125 (Fed. Cir. 1984). Here, the intended purpose of Tajime is to "reduce a processing delay when re-coding compressed moving pictures." Abstract. Based on the complexity of a plurality of pictures, Tajime discloses adjusting a quantization step size that is used in re-coding. See Abstract and col. 8, lines 11-44.

Assuming *arguendo*, that Tajime discloses calculation of the complexity of every single picture, such a scheme would necessarily require additional computation requirements that would be greater than the computational requirements needed for calculating a single complexity for a plurality of pictures. The increased computational requirements would not likely result in a reduction in processing delay, but would likely increase the processing delay, to render the teachings of Tajime unsatisfactory for its intended purpose.

Furthermore, the likelihood of increasing the processing delay shows that the Examiner's proffered motivation to support the alleged obviousness, is unsupported. See page 6 ("Therefore, one skill [sic] in the art would obvious [sic] use the complexity measure computing means in the combined embodiments of figures 1 and 2 of Tajime together for the purposes of achieving high-speed processing . . . " (emphasis added)).

Lastly, the Examiner cites In re Preda to support the proposition that reasonable inferences can be made from the cited art. Applicant respectfully submits that the facts of In re Preda show that the Examiner's characterization of Tajime is not a reasonable inference.

In In re Preda, a process for catalytically producing carbon disulfide by reacting sulfur vapor and methane in the presence of charcoal at a temperature of "about 750-830°C" was found to be met by a reference which expressly taught the same process at 700°C because the reference recognized the possibility of using temperatures greater than 750°C. See 56 C.C.P.A. at 708, 709, 401 F.2d at 826, 827. In contrast, Tajime does not even recognize the possibility of calculating a complexity using only a single picture. Therefore, In re Preda does not provide support for the Examiner's alleged "reasonable inference."

CONCLUSION

For the above reasons as well as the reasons set forth in Appeal Brief, Appellant respectfully requests that the Board reverse the Examiner's rejections of all claims on Appeal. An early and favorable decision on the merits of this Appeal is respectfully requested.

Respectfully submitted,

/ S. Stuart Lee /

SUGHRUE MION, PLLC
Telephone: (202) 293-7060
Facsimile: (202) 293-7860

WASHINGTON OFFICE

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CUSTOMER NUMBER

S. Stuart Lee
Registration No. 61,124

Date: April 7, 2008